

IN THE SPECIFICATION:

Change(s) applied
to document,

/A.M.D./
3/28/2011

Please replace paragraph ⁴¹[0043] with the following amended paragraph:

[0043] I/O Controller 240 includes a controller for PCI Bus 282 and may include controllers for System Management Bus (SMBus) 142, Universal Serial Bus (USB) 144, and the like. In an alternative embodiment, I/O Controller includes a controller for PCI Express bus. I/O Controller 240 also includes HOT Unit 250, effectively decoupling HOT Unit 250 from devices coupled to I/O Controller 240 via PCI Bus 282. Specifically, Hub-to-hub Interface 126 may be a high speed industry standard or proprietary bus coupling HOT Unit 250 to System Memory 130 via System Controller 120. Devices coupled to I/O Controller 240 share the bandwidth available on PCI Bus 282 which is typically lower than the bandwidth available on Hub-to-hub Interface 126. The location of HOT Unit 250 within I/O Controller 240 results in lower latency between HOT Unit 250 and both CPU 110 and System Memory 130 compared with latency between NIC 150 and CPU 110 shown in Fig. 1. Conventionally, low latency may be critical in communicating between a NIC, such as NIC 150 and an application program such as a software stack via a Driver ~~[[255]]~~²¹⁹. Low latency is particularly important for passing commands between NIC 150 and CPU 110, for example, to communicate that frame data stored in Driver Memory Space 135 is ready to be copied to Application Memory Space 125. Furthermore, because Hub-to-hub Interface 126 and Memory Bus 132 each support higher bandwidth than PCI Bus 282, HOT Unit 250 has higher bandwidth access to System Memory 130 than devices coupled to I/O Controller 240 via PCI Bus 282. Higher bandwidth access to System Memory 130 enables HOT Unit 250 to transfer received frames, sometimes referred to as “packets,” to Application Memory Space 227 or Driver Memory Space 235 more quickly than a device coupled to I/O Controller 240 via a lower bandwidth bus such as PCI Bus 282.